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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,114	07/07/2003	Richard Levy	01064.0011-08-000	7674

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EXAMINER

GRAY, JILL M

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 08/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/614,114

Applicant(s)

LEVY, RICHARD

Examiner

Jill M. Gray

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 57-63,65-71,73,76 and 87-91 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 57-63,65-71,73,76 and 87-91 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. In view of the Appeal Brief filed on June 6, 2006, PROSECUTION IS HEREBY REOPENED. An Office Action is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below.

### ***Remarks***

The rejection of claims 62 and 70 under 35 U.S.C. 112 first paragraph is withdrawn upon further consideration.

The rejection of claim 91 under 35 U.S.C. 112 second paragraph as being indefinite based upon improper Markush language is withdrawn upon further consideration.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 57, 65, 73, 76 and 91 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

More specifically, claims 57 and 65 are vague and indefinite because it is not clear what the materials for lubricating a surface can be. In particular, the claim sets forth that the material for lubricating the surface comprises the components of (1) or the components of (2), however, it is not clear if the optional components of (3) are in addition to either (1) or (2), e.g. (1) and (3) or (2) and (3) or, alternative to (1) or (2), e.g., the lubricant comprises (1) or (2) or (3).

Also, it is not clear if the materials for lubricating the surface set forth in (1) comprises lubricating metal, and lubricating metal alloy, and lubricating metal chalcogenide and halide and carbonate, all of these components combined together, with a silicate or phosphate, or if each of the aforementioned components are alternatives. In addition, the term "phosphate" of (1) is broad and encompasses all phosphates, including the "organic phosphate" of (2). Hence, this language sets forth duplicate subject matter. Accordingly, each of the aforementioned concerns renders (4) which sets forth "mixtures thereof" indefinite.

Therefore, the metes and bounds for which patent protection is being sought are not clear.

Claim 91 is indefinite for the reasons stated above and because the language of "wherein said: (1) lubricating metal and alloy thereof, lubricating metal chalcogenide

halide, carbonate, silicate or phosphate, or a particulate lubricating metal nitride, or a carbon lubricant;" is an incomplete statement. Line 4, which sets forth "surface comprises;" is also an incomplete statement. And, the last paragraph of this claim is an incomplete statement. It is not clear how each statement of this claim relates to the other and the structural relationship is not clearly defined. It is not clear what the "surface" refers to, or if any of the components recited in the claim constitutes the "surface." Applicants' punctuation also appears to render this claim indefinite.

Therefore, the metes and bounds for which patent protection is being sought are not clear.

In claims 73 and 76, the range of "about less than 0.5 microns to about 300 microns" is vague and indefinite. In particular, the lower limit of "about less than 0.5 microns" is ambiguous because the term "about" means that exactitude is not being claimed and would include values greater than and less than 0.5 microns. However, the language of "less than" necessarily embraces all values less than 0.5 microns, including zero. Thus, the language of "about less than" renders the lower particle size limit vague and indefinite because it includes zero.

For the record, the examiner has interpreted the material for lubricating a surface of claims 57 and 65 as being either one of the components of (1) or one of the components of (2) or one of the optional components of (3) or mixtures thereof (4).

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 57-63, 65-71, and 87-90 are rejected under 35 U.S.C. 102(b) as being anticipated by Freeman 5,218,011.

Freeman teaches a substrate coated with an essentially water-free composition and method for protecting a substrate such as wires and cable from the affects of water or water migration (claims 62-63, 70-71, and 89-90), wherein the composition comprises a gel matrix, thickener and water absorbent polymer dispersed therein, per claims 57 and 65. The gel matrix can be an organic lubricant such as a petroleum or synthetic lubricant (claims 58 and 66) or silicone or glycol or an organic ester (claims 61 and 69) and the thickener can be a silicate. See abstract and column 7, lines 19-39 and line 58 through column 8 and line 9. In addition, Freeman teaches that the superabsorbent polymer can be based on acrylamides, acrylates, and acrylonitriles, starch grafted copolymers, and FAVOR C96, a crosslinked polyacrylic acid, (claims 59-60 and 67-68) which are the same superabsorbent polymers disclosed by applicants as absorbing greater than 100 times its weight in water. Accordingly, the examiner has reason to believe that the superabsorbent polymer of the prior art has the requisite absorption amount. As to claims 87 and 88, it should be noted that these claims are product-by-process claims. “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art,

the claim is unpatentable even though the prior product was made by a different process.”

Therefore, the teachings of Freeman anticipate the invention as claimed in present claims 57-63, 65-71, and 87-90.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 57-63, 65-71, 73, 76, and 87-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petinelli et al, 4,621,169 (Petinelli) in view of Freeman 5,218,011 and Marciano-Agostinelli et al, 5,049,593 (Marciano-Agostinelli), for reasons of record.

Petinelli teaches a cable and wire substrate coated with an essentially water-free composition, wherein said composition comprises a metal or metal oxide of metal such as zinc, copper or aluminum, or carbon or graphite, as required by claims 57, 62-63, 65, 70-71, and 91. See column 3, lines 61-65. Petinelli also teaches that his composition has an organic lubricant of the type contemplated by applicant in claims 58, 61, 66, and 69. See column 3, lines 40-51. Also, Petinelli teaches that his composition protects from the affects of water or water migration, per claims 89-90. See abstract. Petinelli does not teach the inclusion of a superabsorbent polymer.

Freeman is as set forth above and teaches an essentially water-free gel composition and method for protecting a substrate such as wires and cable from damage by water, said gel composition comprising a gel matrix, thickener and water absorbent polymer dispersed therein, wherein the gel matrix can be silicones, petroleum gels, high viscosity esters (fatty oils), glycols, olefins, mineral oil and fluorocarbons, as required by claims 57-58, 61-63, 65-66, 69-71, and 89-90. See abstract and column 7, lines 19-39 and line 58 through column 8 and line 9. In addition, Freeman teaches that the superabsorbent polymer can be based on acrylamides, acrylates, acrylonitrile and crosslinked polyacrylic acid, as required by claims 58-59 and 67-69, which are the same superabsorbent polymers disclosed by applicants as absorbing greater than 100 times its weight in water. Accordingly, the examiner has reason to believe that the superabsorbent polymer of the prior art has the requisite absorption amount. Freeman teaches that his composition is used to protect components from water damage and prevents water from migrating inside the cable. Freeman additionally teaches that the presence of superabsorbent polymers provides a traveling effect wherein the polymer is activated and travels into interstitial spaces if water is present thereby causing a plugging effect, and providing effective blockage in confined spaces. See column 5, lines 1-14 and 6, lines 20-29. This teaching would have provided motivation to one of ordinary skill in the art at the time the invention was made to modify the teachings of Petinelli by including a superabsorbent polymer in his hydrophobic gel composition, with the reasonable expectation of success of forming a substrate coated with an essentially water-free composition, said composition comprising a superabsorbent polymer and a



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lubricating metal and alloy thereof, and optionally an organic lubricant, wherein said composition is particularly useful in confined spaces in his cable and provides a plugging effect that prevent further invasion of water. Accordingly, it would have been prima facie obvious to modify the composition of Petinelli by adding superabsorbent polymers for added protection from water damage in view of the teachings of Freeman. Freeman is silent as to the particle size of his superabsorbent particles.

Marciano-Agostinelli teaches a water migration resisting filler comprising a polymeric compound and particles of a water swellable material that is applied to stranded wires of cable, said particles having a particle size of less than 200 microns, per claims 73 and 76. See abstract and column 5, lines 51-53. The particles are of the type contemplated by applicants in claims 59-60 and 67-68, such as acrylamide and acrylate and have a water absorbing capability of 100 times its weight in water, as required by applicants in claims 57 and 65. See column 5, lines 43-62. As to the specific water absorbing properties of the superabsorbent particles, Marciano-Agostinelli teaches particles of the same type contemplated by applicant and as taught by Freeman. The skilled artisan would reasonably presume that the same particles necessarily have the same properties in the absence of factual evidence to the contrary.

Though Freeman is silent as to the specific particle size of his particles, it is the examiner's position that changes in size are ordinarily not a matter of invention and that where the difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not

patentably distinct from the prior art device. In the instant case, the present claimed composition having superabsorbent particles of the requisite particle size would not perform differently than the prior art composition. In the alternative, Marciano-Agostinelli teaches the usage of superabsorbent particles having a particle size within the range contemplated by applicants.

As to claims 87 and 88, it should be noted that these claims are product-by-process claims. “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.”

Therefore, the combined teachings of Petinelli, Freeman, and Marciano-Agostinelli would have rendered obvious the invention as claimed in present claims 57-63, 65-71, 73, 76, and 87-91.

### ***Response to Arguments***

8. Applicant's arguments filed in the Appeal Brief of June 6, 2006 have been fully considered but they are not persuasive.

Applicants argue that the references provide no motivation, suggestion or teaching for combining them under 35 U.S.C. 103(a) for the purpose of an obviousness rejection and in fact, the references taken together would lead a person of ordinary skill in the art away from applicants' invention. In particular, applicants' argue that Petinelli

avoids corrosion by employing a hydrophobic gel whereby the superabsorbent polymers of Freeman that the examiner would have the skilled artisan use in lieu of the hydrophobic gel of Petinelli absorb water, which are diametrically opposed.

First, it should be noted that the examiner's position is not the usage of the superabsorbent polymers of Freeman *in lieu* of the hydrophobic gel of Petinelli. Rather, the modification of the hydrophobic gel of Petinelli by adding superabsorbent polymers as taught by Freeman, for added protection against water migration. Agreeably Petinelli teaches that he avoids corrosion by using a moisture proofing hydrophobic gel. However, Freeman also teaches that his composition is a gel matrix having powdered water absorbent polymer mixed therein, wherein the gel matrix is hydrophobic and provides a barrier to the entry of water. Thus, Petinelli and Freeman are both drawn to the protection of wires and cables from damage by water. Both seek to address this concern through the incorporation of hydrophobic gel compositions in their cable constructions. Freeman provides for added protection by adding a superabsorbent polymer that, when activated is able to migrate into the interstices of the cable construction to stop water migration. Accordingly, it is the examiner's position that the teachings of Petinelli and Freeman are not diametrically opposed, rather, are within the same field of endeavor and seek to address the same problem in the art in substantially similar manners.

Applicants argue that Freeman does not teach or suggest applicants' inorganic lubricants but rather organic compounds, further arguing that applicants' claim inorganic

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lubricants and none of the materials of Freeman comprise the inorganic lubricants according to the invention.

In this regard, is not clear that applicant's claims are limited to inorganic lubricants. Applicant's attention is directed back to the rejection under 35 U.S.C. 112. As set forth previously, the examiner has interpreted claims 57 and 65 to be either one of the components of (1) or the components of (2) or the components of (3).

Applicants argue that Freeman does not disclose the water absorbency of the polymer he employs and his water absorbency could be only about 40 or 50.

In this regard, Freeman teaches superabsorbent polymers of the type contemplated by applicants. Therefore, the examiner has reason to believe that the water absorbency of the prior art superabsorbent particles is within the instant claimed range. As to the water absorbency of Freeman being only about 40 or 50, there is no factual evidence on this record to substantiate this argument. Applicants are invited to provide such evidence.

Applicants argue that Marciano-Agostinelli teaches a composition consisting of a mixture of a superabsorbent polymer and a rubber, wherein applicants do not employ rubber as a lubricant and none of the references relied on by the examiner teach or suggest that rubber comprises a material for lubricating a surface. Applicants argue that to combine Freeman with Marciano-Agostinelli would result in a composition containing some of the organic materials of Freeman, a superabsorbent polymer, another superabsorbent polymer and rubber, further arguing that if the examiner makes the combination, she has to take the rubber of Marciano-Agostinelli as well and

applicants do not use rubber as a lubricant and therefore, Marciano-Agostinelli standing alone or in combination with Freeman does not make applicants' invention obvious.

Agreeably Marciano-Agostinelli teaches a mixture of a superabsorbent polymer and a rubber. However, Marciano-Agostinelli also teaches the inclusion of inorganic lubricants such as graphite and silicate in his composition. That being said, it is the position of the examiner that the teachings of Marciano-Agostinelli must be relied upon for all that they would have reasonably conveyed to one of ordinary skill in the art at the time the invention was made. Namely, that the incorporation of superabsorbent polymers in cable filling compounds to improve the resistance to ingress and movement of water in cables is known in the art. Marciano-Agostinelli is also relied upon for his teaching that superabsorbent polymers such as polyacrylates and polyacrylamides have a water absorbency within the instant claimed range, and that the usage of said particles having a particle size within the instant claimed particle size are known in the art. As to the argument that the examiner must include the rubber of Marciano-Agostinelli in any combination made by the examiner, the examiner disagrees. In particular, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference...Rather, the test is what the combined teachings of those references would have suggested to those of ordinary skill in the art. It is not necessary that the inventions of the references be physically combinable to render obvious the invention under review, and combining the teachings of references does not involve an ability to combine their specific structures. MPEP 2145.

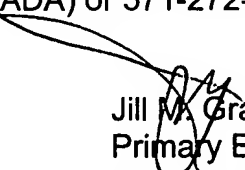
Accordingly, the examiner's position remains that the combined teachings of Petinelli, Freeman and Marciano-Agostinelli would have rendered obvious the invention as claimed in the present claims.

No claims are allowed.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill M. Gray whose telephone number is 571-272-1524. The examiner can normally be reached on M-Th and alternate Fridays 10:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Jill M. Gray  
Primary Examiner  
Art Unit 1774

jmg

  
RENA DYE  
- PRIMARY EXAMINER  
8/21/04